

REMARKS

Claims 15-28 are pending in this application. Claims 15 and 27 are amended herein. Support for the amendments to the claims may be found in the claims as originally filed, and at paragraph [0033] of the specification of record. Reconsideration is requested based on the foregoing amendment and the following remarks.

Objections to the Claims:

Claim 28 was objected to as being in improper dependent form. It is submitted that claim 28 does further limit the subject matter of claim 27, in that it incorporates the radio communication device of claim 27 into a radio communication system. Withdrawal of the objection is earnestly solicited.

Claim Rejections - 35 U.S.C. § 112:

Claim 15 was rejected under 35 U.S.C. § 112, second paragraph, as indefinite. Claim 15 was amended to make it more definite. Withdrawal of the rejection is earnestly solicited.

Claim Rejections - 35 U.S.C. § 102:

Claims 15, 16, 19, 20, and 22-28 were rejected under 35 U.S.C. § 102(b) as anticipated by WIPO Publication No. WO 02/078382 to Bergendorff (hereinafter "Bergendorff"). The rejection is traversed to the extent it would apply to the claims as amended. Reconsideration is earnestly solicited.

In the claimed invention, a position of a first mobile radio communication device is determined. In order to determine the position of the first mobile radio communication device, position information from at least one second mobile communication device, the location of which is known, is transmitted to the first mobile communication device.

Moreover, both the location of the second mobile radio device and the distance between the first and the second mobile radio devices are taken into account when determining the position of the first mobile communication device. The manner in which the distance between the first and the second mobile radio devices is determined as described in the specification at page 11, paragraphs [0031], [0032], and [0033]. As described at paragraph [0032], in particular, the distance between the first radio communication device and the second radio communication

device can be inferred from the signal propagation time. The third clause of claim 15, in particular, recites:

Inferring a distance between the first mobile radio communication device and the at least one second mobile communication device.

The accuracy of determining the position of the first radio communication device is increased by taking into account the distance between the mobile radio devices. Bergendorff, on the other hand, neither teaches, discloses, nor suggests “inferring a distance between the first mobile radio communication device and the at least one second mobile communication device,” as recited in claim 15. In Bergendorff, rather, the various communication units are considered to be in approximately the *same* position, i.e. Bergendorff considers the distance between the communication units to be negligible. In particular, as described at page 5, lines 29-32:

If we accept that the range of the short-range communication used is sufficiently low to give an acceptable positioning precision, the various communication units can be considered from the point of view of the system to be in approximately the same position.

Since, in Bergendorff, the various communication units are considered to be in approximately the same position, Bergendorff has no need for “inferring a distance between the first mobile radio communication device and the at least one second mobile communication device,” as recited in claim 15.

In Bergendorff, moreover, the users transmit positioning information P1 and P2 to each other, such that they *each* can exploit P1 and P2 in order to calculate the position P. In particular, as described at page 6, lines 27, 28, and 29:

As has been illustrated, the users can transmit positioning information P1 and P2 to each other, such that they each can exploit P1 and P2 in order to calculate the position P.

Since, in Bergendorff, the users transmit positioning information P1 and P2 to each other, such that they each can exploit P1 and P2 in order to calculate the position P, Bergendorff has no need for “inferring a distance between the first mobile radio communication device and the at least one second mobile communication device,” as recited in claim 15.

Bergendorff, moreover, assumes that both P1 and P2 have been detected at the *same* point. In particular, as described at page 7, lines 17-21:

In the same way as has been described above for the case using satellite

positioning, A can in this case exploit positioning information P2 from B in order to calculate the position P with the use of the total set of both P1 and P2, with the assumption that both P1 and P2 have been detected at the same point.

Since Bergendorff assumes that both P1 and P2 have been detected at the same point, Bergendorff has no need for “inferring a distance between the first mobile radio communication device and the at least one second mobile communication device,” as recited in claim 15.

In Bergendorff, moreover, the position P is an approximate position of a location that covers *both* user A and user B. In particular, as described at page 8, lines 13-18:

It is, however, true that the position P that is obtained does not actually reflect the position of user C, but an approximate position of a location that covers both user A and user B. Due to the fact that the range of the short-range communication is considerably shorter than the precision of the cellular positioning system, however, the approximation that P is the location of the user C can still be made.

Since, in Bergendorff, the position P is an approximate position of a location that covers both user A and user B, Bergendorff has no need for “inferring a distance between the first mobile radio communication device and the at least one second mobile communication device,” as recited in claim 15.

The calculator 5 of Bergendorff, finally, calculates a position P depending on the positioning information P1, P2. In particular, as described at page 10, lines 15 and 16:

The controller 7 controls a calculator 5, arranged to calculate a position P depending on the positioning information P1, P2.

Since the calculator 5 of Bergendorff calculates a position P depending on the positioning information P1, P2, the communication unit 1 already *has* positions P1 and P2, and consequently Bergendorff has no *need* for also “inferring a distance between the first mobile radio communication device and the at least one second mobile communication device,” as recited in claim 15. Claim 15 is submitted to be allowable. Withdrawal of the rejection of claim 15 is earnestly solicited.

Claims 16, 19, 20, and 22-26 depend from claim 15 and add further distinguishing elements. Claims 16, 19, 20, and 22-26 are thus also submitted to be allowable. Withdrawal of the rejection of claims 16, 19, 20, and 22-26 is also earnestly solicited.

Claims 27 and 28:

The fifth clause of claim 27 recites:

Wherein a distance between the first mobile radio communication device and the at least one second mobile communication device is inferred on the basis of the signal propagation time of the at least one radio signal.

Bergendorff neither teaches, discloses, nor suggests "wherein a distance between the first mobile radio communication device and the at least one second mobile communication device is inferred on the basis of the signal propagation time of the at least one radio signal," as discussed above with respect to the rejection of claim 15. Claim 27 is thus also submitted to be allowable, for at least those reasons discussed above with respect to the rejection of claim 15. Withdrawal of the rejection of claim 27 is earnestly solicited.

Claim 28 depend from claim 27 and adds further distinguishing elements. Claim 28 is thus also submitted to be allowable. Withdrawal of the rejection of claim 28 is earnestly solicited.

Claim Rejections - 35 U.S.C. § 103:

Claims 17, 18, and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bergendorff in view of U.S. Patent No. 6,836,653 to Kang (hereinafter "Kang"). The rejection is traversed to the extent it would apply to the claims as amended. Reconsideration is earnestly solicited.

Claims 17, 18, and 21 depend from claim 15 and add further distinguishing elements. Bergendorff neither teaches, discloses, nor suggests "inferring a distance between the first mobile radio communication device and the at least one second mobile communication device," as discussed above with respect to the rejection of claim 15. Kang does not either, and thus cannot make up for the deficiencies of Bergendorff with respect to claims 17, 18, and 21 in any case. Thus, even if Bergendorff and Kang were combined as proposed in the Office Action, claims 17, 18, and 21 would not result. Claims 17, 18, and 21 are thus also submitted to be allowable. Withdrawal of the rejection of claims 17, 18, and 21 is earnestly solicited.

Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all of claims 15-28 are allowable over the cited references. Allowance of all claims 15-20 and of this entire application is therefore respectfully requested.

Finally, if there are any formal matters remaining after this response, the Examiner is invited to telephone the undersigned to attend to these matters.

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If there are any additional fees associated with filing of this Amendment, please charge them to our Deposit Account No. 19-3935.

Respectfully submitted,

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